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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,953	09/08/2006	Tomas Nylander	4144-9	6872
23117 7590 02/04/2010 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
WANG-HURST, KATHY W				
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2617				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/591,953

Applicant(s)

NYLANDER ET AL.

Examiner

KATHY WANG-HURST

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-5, 9, 14-15, 18-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 9, 14-15, 18-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Applicant's amendment filed on 12/21/2009 has been entered. Claims 1, 3-5, 9, 14-15, 18-23 are pending for examination.

Response to Arguments

1. Applicant's arguments filed 12/21/2009 have been fully considered but they are not persuasive.

Regarding the applicant's argument that the prior art of record does not teach or suggest "an unlicensed radio access network wherein the access controller comprises a database for storing an identification of a mobile station in association with a network address for said mobile station on said broadband network, wherein said network address is unique to said mobile station so as to enable said access controller to page said mobile station individually, said access controller being adapted to delete said identification data when said mobile station ceases to operate in the coverage areas of said unlicensed radio access network" (pages 3-4), the examiner respectfully disagrees. First of all, the access controller 303 disclosed in the applicant's application is connected to the core network portion and to the broadband network (see Fig. 3 and Abstract), therefore in effect the access controller 303 is served as a gateway between the core network and the broadband network. The prior art of record, Lamb, discusses a similar structure where the access controller is connected to an 802.11 network and an IP network (e.g. see Fig. 2 and 3A and 3B). Similarly, Stanforth discusses a gateway connected between an ad hoc network and a cellular network, PSTN or ISP (see

[0038]). Therefore both references present an equivalence structurally based on the applicant's description. Secondly, both references discuss a database with which a mobile station registers (e.g. see Lamb [0019][0022][0023]). Although Lamb does not specifically discuss deleting identification data after the mobile station ceases the communication, Stanforth is brought to show that the feature is well known in the art ([0058]). Therefore the combination of Lamb and Stanforth teaches "an unlicensed radio access network wherein the access controller comprises a database for storing an identification of a mobile station in association with a network address for said mobile station on said broadband network, wherein said network address is unique to said mobile station so as to enable said access controller to page said mobile station individually, said access controller being adapted to delete said identification data when said mobile station ceases to operate in the coverage areas of said unlicensed radio access network".

Similarly, regarding the applicant's argument that the prior art of record does not teach or suggest "registering said mobile station identification information in association with said mobile station network address on said fixed broadband network, wherein said network address is unique to said mobile station so as to enable said access controller to page said mobile station individually, determining when a connection established with said mobile station is no longer maintained and deleting said mobile station identification information when it is determined that a connection is no longer maintained" (pages 4-5), the examiner respectfully disagrees. Lamb discusses registering the identification of a mobile station on the broadband network for the

purpose of data delivery (e.g. see [0019][0022][0023]). It is common knowledge the registration of identification information associated with the mobile station must be unique for call routing purposes because if identification data is not uniquely identifiable the call/packet data will not be delivered to the destination. Stanforth is brought to show such unique relationship ([0045]). Although Lamb does not specifically discuss deleting identification data after the mobile station ceases the communication, Stanforth is brought to show that the feature is well known in the art ([0058]). Therefore the combination of references does teach "registering said mobile station identification information in association with said mobile station network address on said fixed broadband network, wherein said network address is unique to said mobile station so as to enable said access controller to page said mobile station individually, determining when a connection established with said mobile station is no longer maintained and deleting said mobile station identification information when it is determined that a connection is no longer maintained".

Regarding the applicant's similar arguments on deleting said identification data after the connection is no longer maintained (page 6), they have been addressed as shown above.

Concerning the combination of references, both of the references are from the same field, i.e. communication systems and concern analogous topics. Therefore, the examiner contends that the references would be combinable to one skilled in the art.

Therefore, the argued limitations read upon the cited references or are written broad such that they read upon the cited references, as follow.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-4, 9, 14-15, 18-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamb et al. (US 2004/0209615) in view of Stanforth (US 2002/0058504).

Regarding claims 1 and 20, Lamb discloses an unlicensed-radio access network connected to a core network portion of a licensed mobile network (see e.g. Abstract and [0012][0022] a WLAN connected to a cellular network), said unlicensed-radio access network comprising:

an access controller (Fig. 4 item 403) connected to said core network portion,
a broadband network connected to said access controller and comprising a plurality of access points (Fig. 4 item 405), each said access point defining a mini-cell coverage area ([0022] a home network therefore a mini-cell coverage) and supporting an unlicensed-radio interface (Fig. 4 item 401, unlicensed radio interface) permitting communication between mobile stations located within a respective mini-cell and said access controller (Fig. 4 item 401),

wherein said access controller:

is adapted to communicate directly with mobile stations located in a mini-cell ([0024]);

is associated with one or more location areas in said licensed radio mobile network (Fig. 4 item 440, associated with cellular network);

comprises a database (Fig. 2 item 209) for storing an identification of a mobile stations in association with a network address for said mobile station on said broadband network ([0019][0022][0023] AAA is where the mobile stations are registered and verified).

Lamb discloses a database storing mobile station information in association with a network address but does not explicitly disclose network address is unique to said mobile station so as to enable said access controller to page said mobile station individually.

Stanforth teaches a unique relationship between the mobile terminal and gateway controller and gateway controller paging the mobile terminal to establish a connection ([0045]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Lamb, to facilitate the call connection between the gateway controller and the mobile terminal through paging the terminal from its serving controller, as taught by Stanforth, thus allowing a smooth call connection between an ad-hoc network and a cellular network ([0045]).

Lamb discloses an access controller associated with a database containing mobile device information but does not specifically disclose said access controller being adapted to delete said identification data when said mobile station ceases to operate in the coverage areas of said unlicensed radio access network.

In an analogous art, Stanforth teaches a network gateway erasing calls information after the call is terminated ([0058]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Lamb, to remove the identification information of the mobile terminal when the connection between mobile terminal and access network is terminated, as taught by Stanforth, thus allowing a more efficient use of memory space.

Regarding claim 14, Lamb discloses a method in an access controller of an unlicensed-radio access network, wherein said access controller is connected to a broadband network comprising a plurality of access points and to a core network portion of a licensed-radio cellular network and being adapted to communicate with mobile stations over an unlicensed-radio interface via said access points(see e.g. Abstract and [0012][0022] a WLAN connected to a cellular network), said method comprising:

establishing communication with a mobile station using a network address on said broadband network for said mobile station (see e.g. [0022]-[0025]),

receiving identification information specific to a mobile station from said mobile station,

registering said mobile station identification information in association with said mobile station network address on said broadband network(see e.g. [0022]-[0025]).

Lamb discloses identifying mobile station in association with a network address but does not explicitly network address is unique to said mobile station so as to enable said access controller to page said mobile station individually.

In an analogous art, Stanforth teaches a unique relationship between the mobile terminal and gateway controller and gateway controller paging the mobile terminal to establish a connection ([0045]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Lamb, to facilitate the call connection between the gateway controller and the mobile terminal through paging the terminal from its serving controller, as taught by Stanforth, thus allowing a smooth call connection between an ad-hoc network and a cellular network ([0045]).

Lamb discloses an access controller associated with a database containing mobile device information but does not specifically disclose determining when a connection established with said mobile station is no longer maintained and deleting said mobile station identification information when it is determined that a connection is no longer maintained.

In an analogous art, Stanforth teaches a network gateway erasing calls information after the call is terminated ([0058]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Lamb, to remove the identification information of the mobile terminal when the connection between mobile terminal and access network is terminated, as taught by Stanforth, thus allowing a more efficient use of memory space.

Regarding claims 3 and 21, combination of Lamb and Stanforth discloses an access controller as claimed in claim 1 and 20 respectively, further adapted to receive

from said core network portion a paging message comprised by the identification of a mobile station located in the associated location area, to identify the network address associated with said identified mobile station, and to transmit said paging message to said identified network address only.

Regarding claim 4, Lamb discloses registering and storing identification data on the broadband network (see e.g. [0022]-[0025]).

Regarding claims 9 and 23, combination of Lamb and Stanforth discloses an access controller as claimed in claim 1 and 20 respectively, wherein said access network controller is adapted to determine whether a connection with said mobile station is maintained and to delete said identification data on determining that said connection is, no longer maintained.

Regarding claim 15, combination of Lamb and Stanforth discloses a method as claimed in claim 14, further comprising: receiving a message from said core network portion paging a mobile station, retrieving mobile station identification information registered for said paged mobile, and forwarding said paging message only to the network address identified in association with said registered mobile station identification information.

18 and 19. Lamb discloses an access network as claimed in claim 1 and 14 respectively, wherein the broadband network is a fixed broadband network ([0022]).

3. Claims 5 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamb in view of Stanforth, further in view of Haverinen et al. (US 2004/0208151).

Regarding claims 5 and 22, combination of Lamb and Stanforth discloses mobile station identification data but fails to disclose the mobile station identification data is the international mobile subscriber identity (IMSI).

Haverinen teaches transmitting IMSI for authentication ([0036]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Lamb and Stanforth, to use IMSI as an identification to verify the mobile unit, as taught by Haverinen, thus allowing a more efficient way of authenticating the mobile terminal by using a widely recognized id.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATHY WANG-HURST whose telephone number is

(571) 270-5371. The examiner can normally be reached on Monday-Thursday, 7:30am-5pm, alternate Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KATHY WANG-HURST/
Examiner, Art Unit 2617

/NICK CORSARO/
Supervisory Patent Examiner, Art Unit 2617